www.huawei.com

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible]

[illegible] Internet [illegible]

[illegible]

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible]

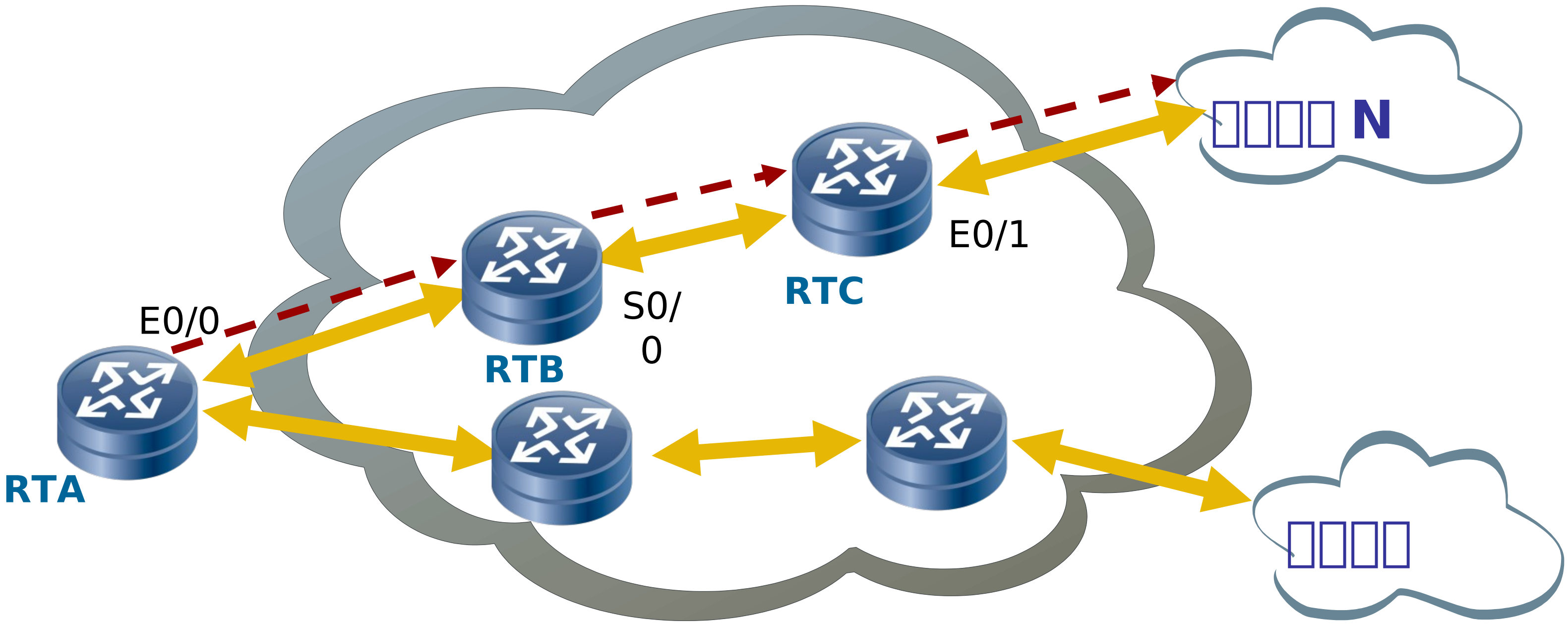
[illegible]

- [illegible]
- [illegible]
- [illegible]
- [illegible]

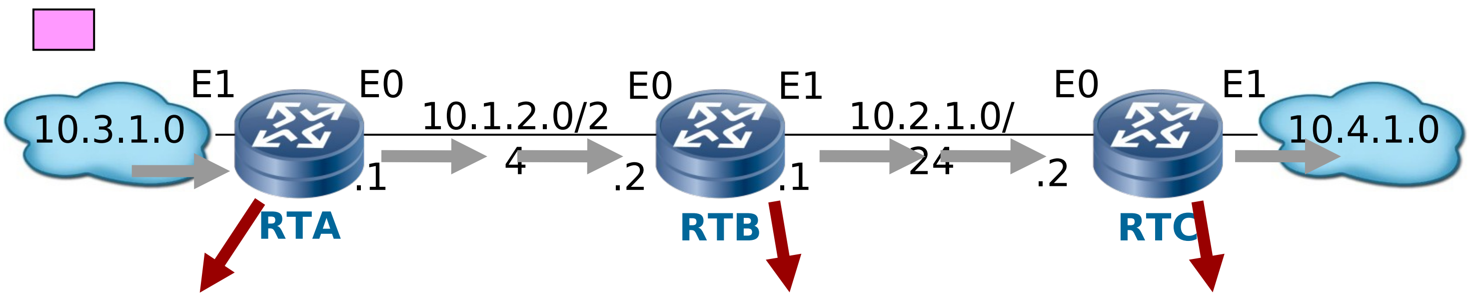
Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible]

[illegible] IP [illegible]



IP □□□□



□□□□	□□□	□□□
10.1.2.0	10.1.2.1	E0
10.2.1.0	10.1.2.2	E0
10.3.1.0	10.3.1.1	E1
10.4.1.0	10.1.2.2	E0

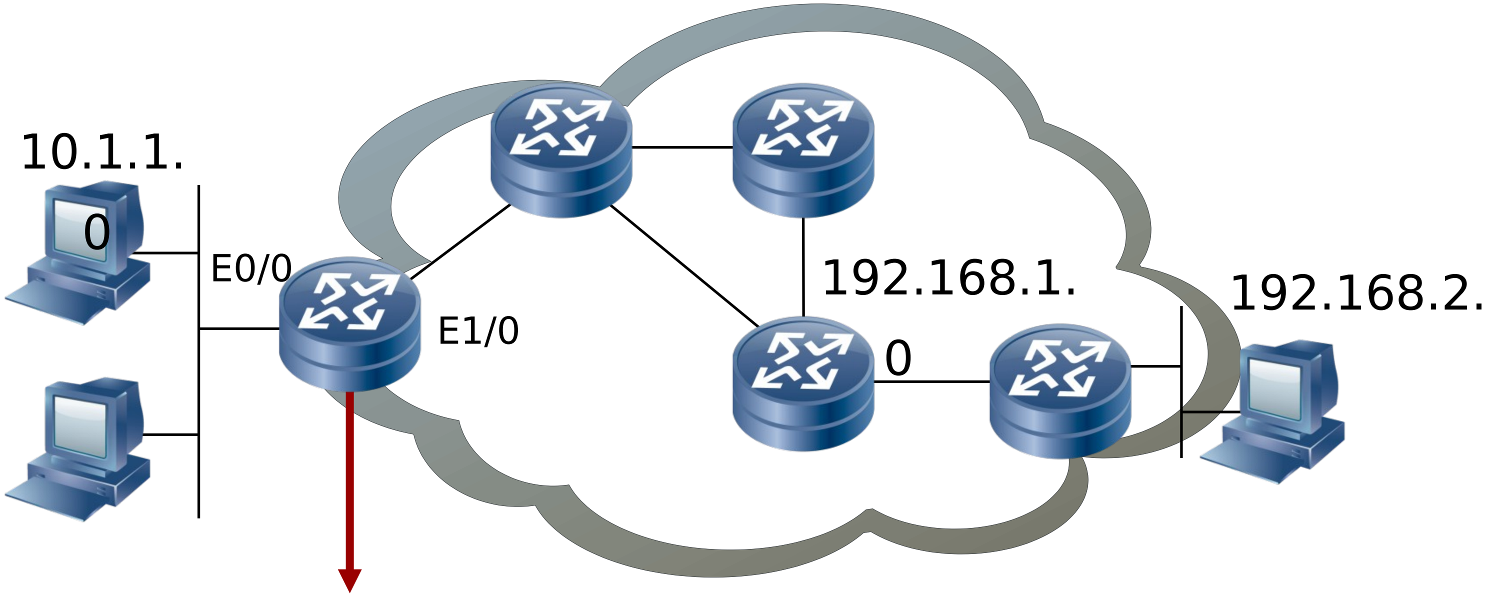
□□□□	□□□	□□□
10.1.2.0	10.1.2.2	E0
10.2.1.0	10.1.2.1	E0
10.3.1.0	10.1.2.1	E0
10.4.1.0	10.2.1.2	E1

□□□□	□□□	□□□
10.1.2.0	10.2.2.2	E0
10.2.1.1	10.2.1.2	E0
10.3.1.0	10.2.1.1	E0
10.4.1.0	10.4.1.1	E1

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

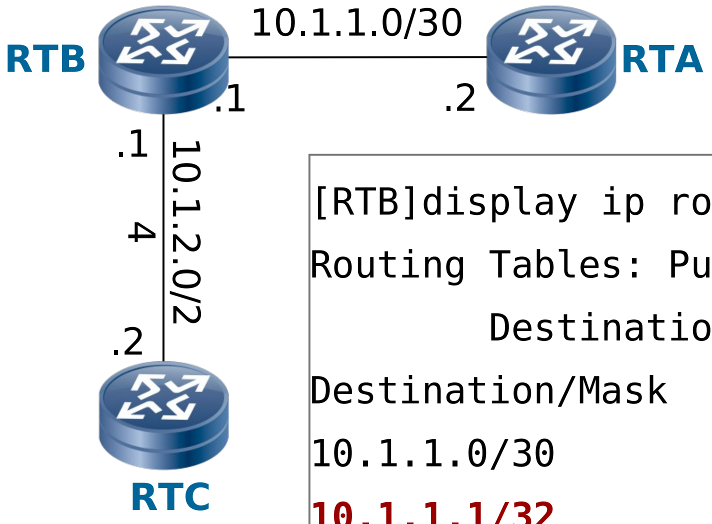
[illegible]



[illegible]	[illegible]	[illegible]
Direct	10.1.1.0	
E0/0		
Static	192.168.1.0	
E1/0		

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

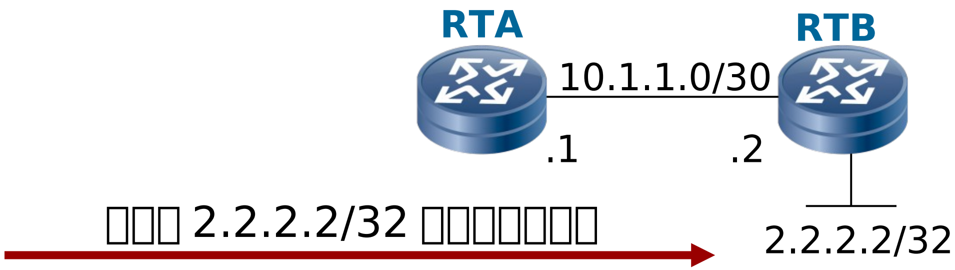
□□□□□–□□□□□□□□




```
[RTB]display ip routing-table
Routing Tables: Public
        Destinations : 8        Routes : 8
Destination/Mask    Proto   Pre  Cost  NextHop     Interface
10.1.1.0/30         Direct  0    0     10.1.1.1    Serial0/0/0
10.1.1.1/32         Direct  0    0     127.0.0.1   InLoopBack0
……
10.1.2.1/32         Direct  0    0     127.0.0.1   InLoopBack0
10.1.2.2/32         Direct  0    0     10.1.2.2    Serial0/0/1
127.0.0.0/8         Direct  0    0     127.0.0.1   InLoopBack0
127.0.0.1/32        Direct  0    0     127.0.0.1   InLoopBack0
```

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

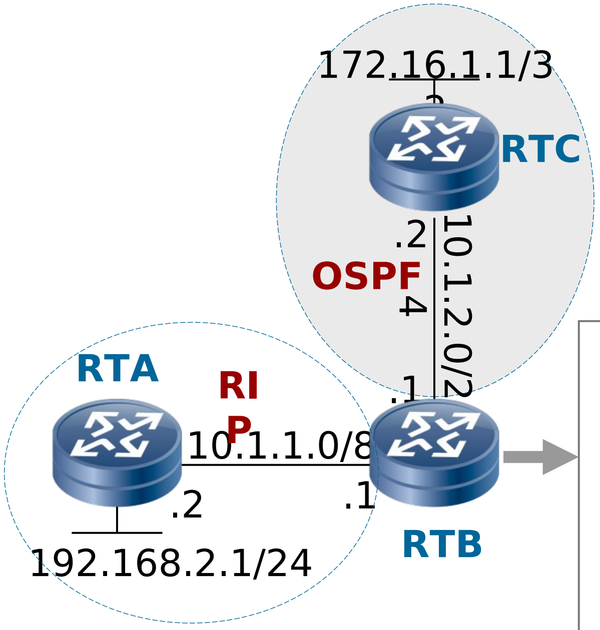
□□□□□–□□□□




```
[RTA] display ip routing-table
Routing Tables: Public
        Destinations : 8        Routes : 8
Destination/Mask  Proto   Pre  Cost   NextHop     Interface
2.2.2.2/32        Static  60   0      10.1.1.2    Serial0
10.1.1.0/30       Direct  0    0      10.1.1.1    Serial0
10.1.1.1/32       Direct  0    0      127.0.0.1   InLoopBack0
10.1.1.2/32       Direct  0    0      10.1.1.2    Serial0
127.0.0.0/8       Direct  0    0      127.0.0.1   InLoopBack0
127.0.0.1/32      Direct  0    0      127.0.0.1   InLoopBack0
```

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible]–[illegible]



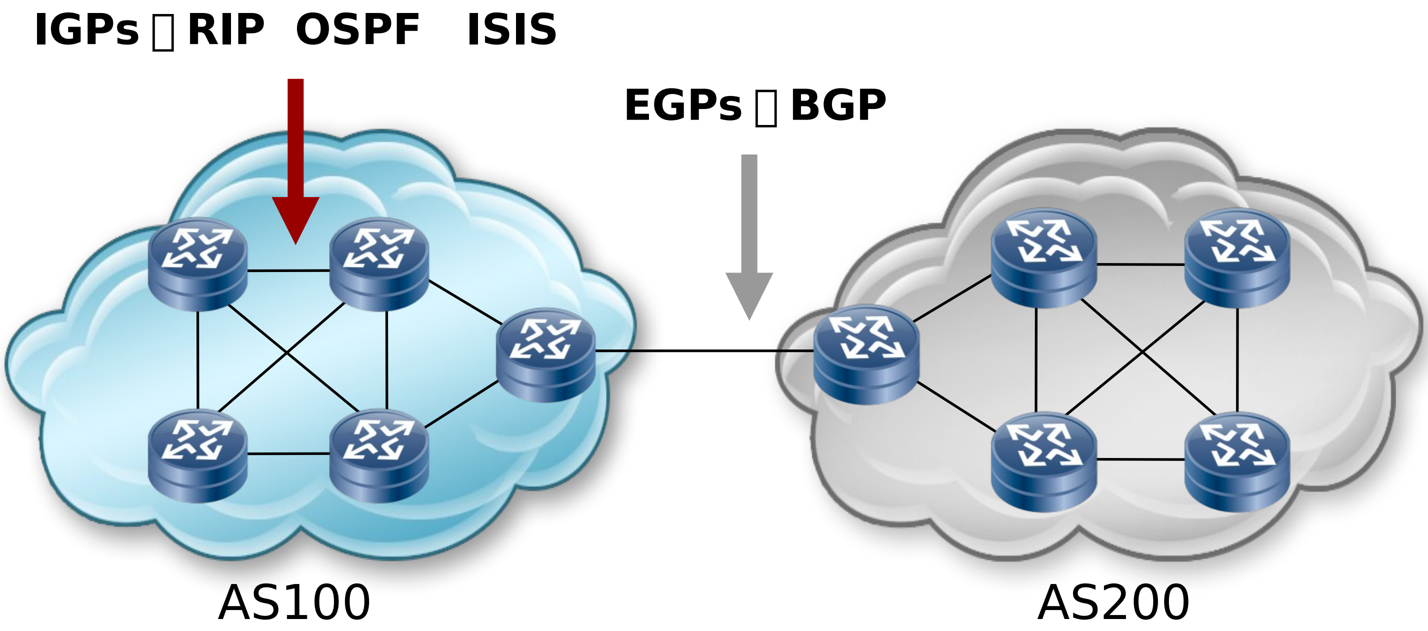

```
[RTB]display ip routing-table
Routing Tables: Public
        Destinations : 10        Routes : 10
Destination/Mask   Proto    Pre   Cost   NextHop     Interface
10.1.1.0/30        Direct   0     0      10.1.1.2    Serial0/0/0
10.1.1.1/32        Direct   0     0      10.1.1.1    Serial0/0/0
……
127.0.0.1/32       Direct   0     0      127.0.0.1   InLoopBack0
172.16.1.1/32      OSPF     10    1562   10.1.2.2    Serial0/0/1
192.168.2.0/24     RIP      100   1      10.1.1.1    Serial0/0/0
```

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

□□□□□□—□□□□



Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible]—[illegible]

[illegible]

- [illegible] Distance-Vector [illegible]
  - [illegible] RIP [illegible] BGP [illegible] BGP [illegible] Path-Vector [illegible]
- [illegible] Link-State [illegible]
  - [illegible] OSPF [illegible] IS-IS [illegible]

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible]—[illegible]

[illegible]

- [illegible] Unicast Routing Protocol [illegible]
  RIP [illegible] OSPF [illegible] BGP [illegible] IS-IS [illegible]
- [illegible] Multicast Routing Protocol [illegible]
  DVMRP [illegible] PIM-SM [illegible] PIM-DM [illegible]

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

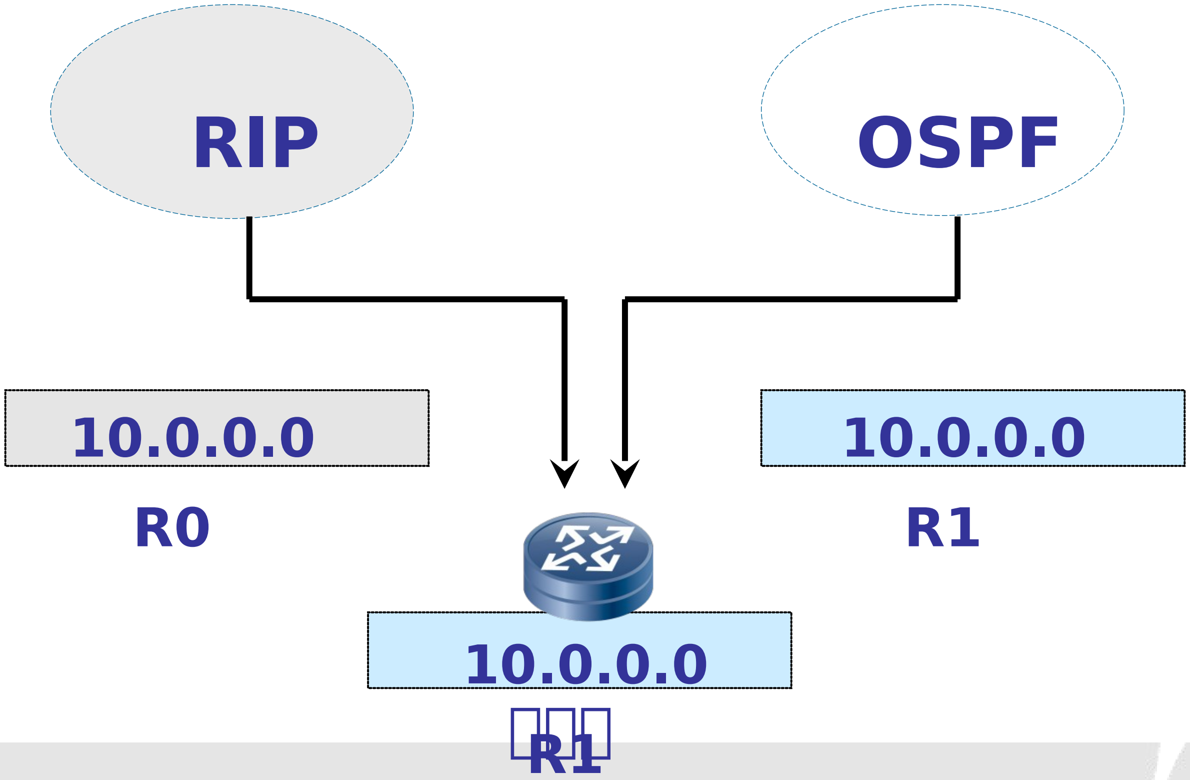
□□□

```
[Quidway] display ip routing-table
Routing Tables:
Destination/Mask   proto   pref  cost   Nexthop     Interface
0.0.0.0/0          Static  60    0      120.0.0.2   Serial0/0
8.0.0.0/8          RIP     100   3      120.0.0.2   Serial0/1
9.0.0.0/8          OSPF    10    50     20.0.0.2    Ethernet0/0
9.1.0.0/16         RIP     100   4      120.0.0.2   Serial0/0
11.0.0.0/8         Static  60    0      120.0.0.2   Serial0/1
20.0.0.0/8         Direct  0     0      20.0.0.1    Ethernet0/2
20.0.0.1/32        Direct  0     0      127.0.0.1   LoopBack0
```

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible] Preference [illegible]

[illegible]



Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible] Preference [illegible]

VRP [illegible]

[illegible]	[illegible]
DIRECT	0
OSPF	10
IS-IS	15
STATIC	60
RIP	100
OSPF ASE	150

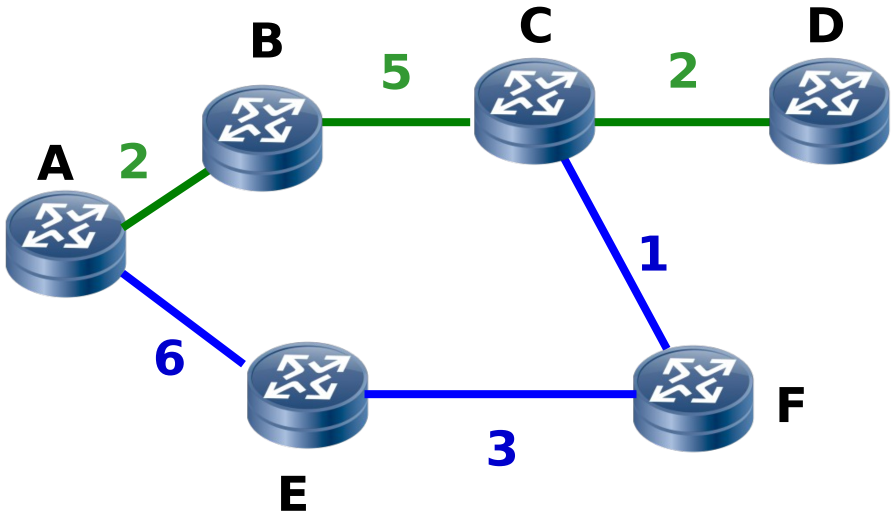
Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

□□□□□

□□□A□□□□D□□□□□□

- Path1□ A→B→C→D □□□□□□□9
- Path2□ A→E→F→C→D □□□□□□□12

□□□□□□□□□□□□□□□□□□□□□□



Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

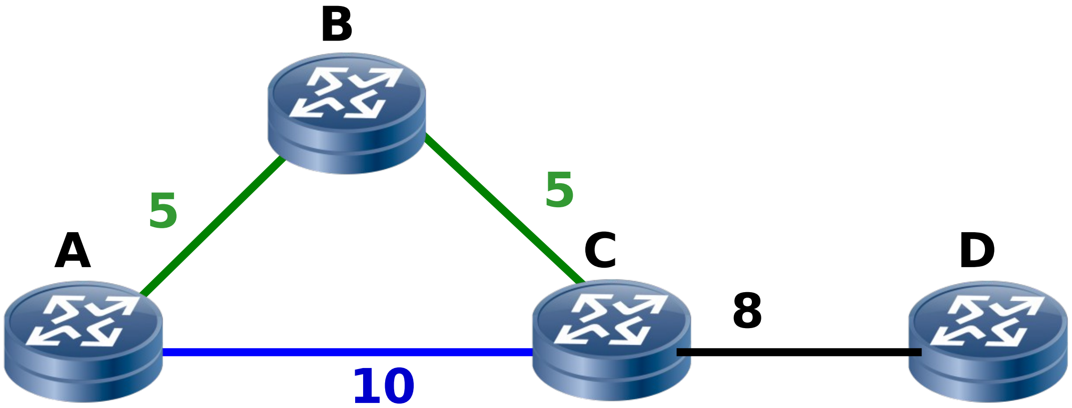
□□□□□ ECMP

□□□□□ ECMP, Equal Cost Multi-Path

- □□□ IP □□□
  □□□□□□□□□□□

A □ D □□□□□□

- A→B→C→D □□□□ 5+5+8=18
- A→C→D □ □□□ 10+8=18



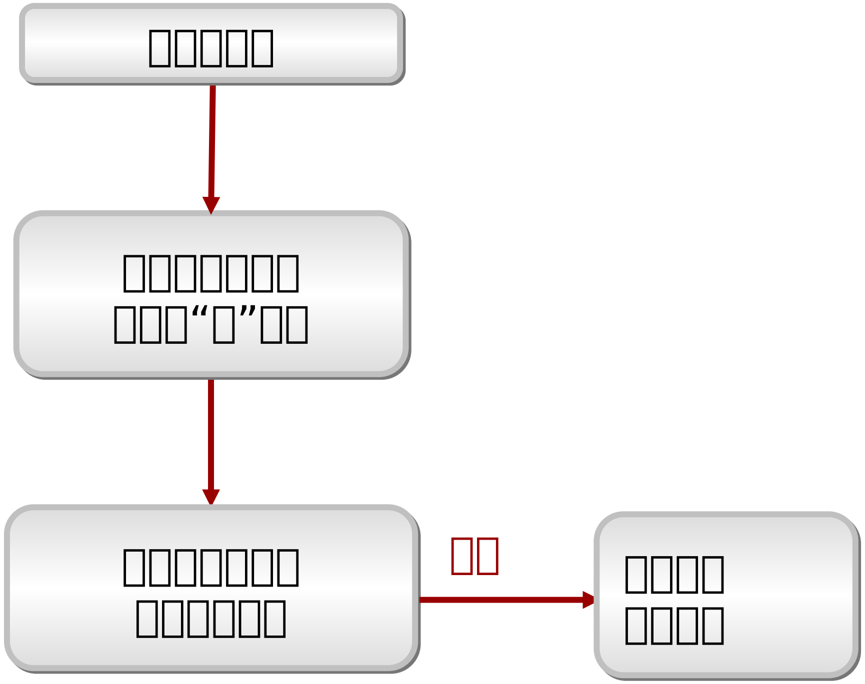
Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible]

```
[RTB] display ip routing-table
Routing Tables: Public
        Destinations : 13       Routes : 15
Destination/Mask   Proto  Pre  Cost      NextHop     Interface
3.3.3.0/24         Direct   0    0        3.3.3.2      Serial2
3.3.3.1/32      Direct   0    0       3.3.3.1      Serial2
3.3.3.2/32      Direct   0    0       127.0.0.1    InLoopBack0
10.1.1.1/32        Static    60   0        1.1.1.1      Serial0
                   Static    60   0        2.2.2.1      Serial1
                   Static    60   0        3.3.3.1      Serial2
20.1.1.1/32        Direct    0    0        127.0.0.1    InLoopBack0
127.0.0.0/8        Direct    0    0        127.0.0.1    InLoopBack0
127.0.0.1/32       Direct    0    0        127.0.0.1    InLoopBack0
```

[illegible]

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.



Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible]

[illegible] 9.1.2.1 [illegible] 9.1.0.0/16 [illegible]

```
[Quidway] display ip routing-table
Routing Tables:
```

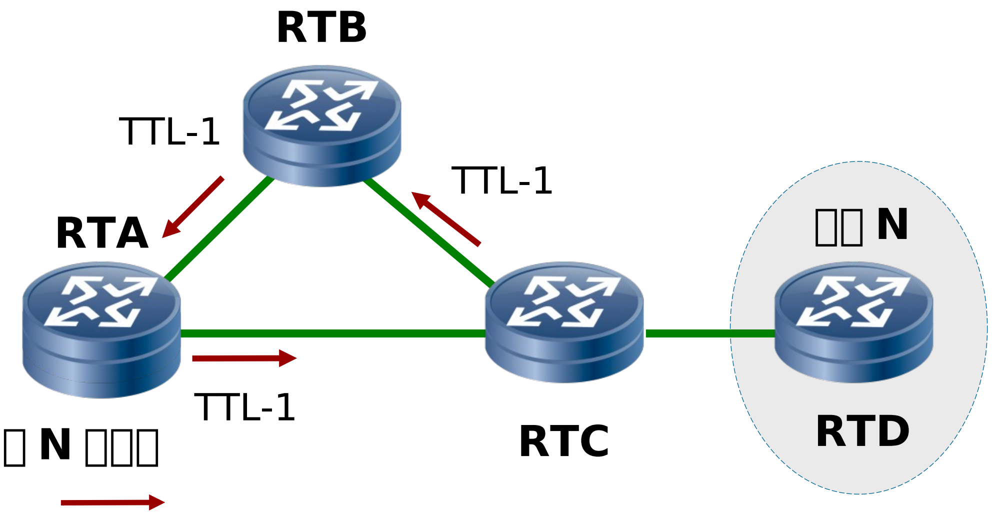
Destination/Mask	proto	pref	Cost	Nexthop	Interface
0.0.0.0/0	Static	60	0	120.0.0.2	Serial0/1
8.0.0.0/8	RIP	100	3	120.0.0.2	Serial0/1
9.0.0.0/8	OSPF	10	50	20.0.0.2	Ethernet0/0
9.1.0.0/16	**RIP**	**100**	**4**	**120.0.0.2**	**Serial0/1**
11.0.0.0/8	Static	60	0	120.0.0.2	Serial0/1
20.0.0.0/8	Direct	0	0	20.0.0.1	Ethernet0/2
20.0.0.1/32	Direct	0	0	127.0.0.1	LoopBack0

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

□□□□

□□□□□ Routing LOOP □□□□□□□□□□□□□□□□□□

TTL □□ 0 □□□



Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

[illegible]

[illegible](learning.huawei.com [illegible]

- **1 [illegible] E-learning [illegible]**
  - [illegible] **E-Learning** [illegible]
  - [illegible]“[illegible]”[illegible]“ email [illegible]”[illegible] *Learning@huawei.com* *[illegible]*
- **2 [illegible]**
  - [illegible] **+** [illegible]
  - [illegible]“[illegible] / [illegible]”[illegible]
- **3 [illegible] (LVC) [illegible]**
  - [illegible] UC&C [illegible]
  - [illegible] *http://support.huawei.com/ecommunity/bbs/10154479.html*
- **4 [illegible] eNSP**
  - eNSP (Enterprise Network Simulation Platform), [illegible]
- [illegible], [illegible] [illegible][illegible][illegible]
  http://support.huawei.com/ecommunity/bbs/list_2247.html [illegible]

Copyright © 2012 Huawei Technologies Co., Ltd. All rights reserved.

www.huawei.com